

A reactor of a chemical vapor deposition system is equipped with a gas feeder for blowing dopant gas to plural semiconductor wafers supported by a wafer boat at intervals, and the gas feeder has a gas passage gradually reduced in cross section and gas outlet holes equal in diameter and arranged along the wafer boat for keeping the doping gas concentration substantially constant around the semiconductor wafers, whereby the dopant is uniformly introduced in material deposited on all the semiconductor wafers.